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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,518	09/19/2003	Mitsuru Mimori	5405-8	9176

27799 7590 01/18/2007

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EXAMINER	
PATEL, GAUTAM	
ART UNIT	**PAPER NUMBER**
2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/666,518	MIMORI ET AL.	
	Examiner	Art Unit	
	Gautam R. Patel	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. This is in response to amendment filed on 11/27/06.

claims 1-45 remain for examination.

2. Applicant's arguments regarding rejection of claims 1-45 for double patenting with respect to application10/654,918 has been **withdrawn**. However new double patenting follows.

3. Objection to claim 18 is **withdrawn** in light of the amendment.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

a. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending application Serial No. 11/063,994. Although the conflicting claims are not identical, they are not patentably distinct from each other because are claiming the concept of maximum diffraction efficiency with the help of ring-shaped diffractive element having dual wavelength diffraction capability and path difference giving structures.

The concept of claim 2-45 has been disclosed in the above pending application and therefore claims 2-45 are also rejected.

b. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7 & 12 of copending application Serial No. 11/076232. Although the conflicting claims are not identical, they are not patentably distinct from each other because are claiming the concept of maximum diffraction efficiency with the help of ring-shaped diffractive element having dual wavelength diffraction capability and path difference giving structures.

The concept of claim 2-45 has been disclosed in the above pending application and therefore claims 2-45 are also rejected.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Objection to Specification

5. The disclosure is objected for following reasons.

Specification needs to be updated with respect to information on the **ALL** related applications. Cross-References to Related Applications: See 37 C.F.R. § 1.78 and section 201.11 of the M.P.E.P.

Claim Rejections - 35 U.S.C. § 112

6. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-45 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

A. L-th order and M-th order diffracted light required by the claims is not described in the specification. On paragraph 47, 55-63 and 316 the specification mentions M-th order and L-th order diffracted light but does not explain what these M-the and L-the order lights are and how they relate to the wavelengths λ_1 and λ_2, and also with each other. Accordingly, the

specification does not explain to one of ordinary skill in the art at the time of the invention, how to make and or use the invention comprising the claimed "M-th and L-th order diffracted light".

Claim 36 has the same problem.

B. Last two lines of claim 1, "An assumption of no existence of the optical path difference giving structure", is not defined at all. It not clear what is meant by "assumption" and what are limits of this assumption. Thus claims 1-35 does not tell one of ordinary skill in the art how to make and or use the invention comprising an assumption.

7. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-45 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claim 1, lines 20-25 are confusing and unclear. It is not clear what are meets and bound of the claim language, which claims M-th, and L-th order diffracted light. It is not clear what number M or L represents except that it not zero. But it is not clear if this number is whole number or a fraction, and more importantly how it is related to wavelengths.

Claim 36 has the same problem.

B. Last two lines of claim 1, "An assumption of no existence of the optical path difference giving structure" is not defined at all. The word "**assumption**" makes claims 1-35 indefinite. Hoe can one compare anything with an assumption.

8. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims 1-45 and no art rejection will be made in this office action regarding the claims 1-45, due to the speculation required to interpret the claims because of their indefiniteness under 35 U.S.C. 112, 1st and 2nd paragraphs as noted above (see In re Steele, 134 USPQ 292).

9. Applicant's arguments filed on 11/27/06 have been fully considered but they are not deemed to be persuasive for the following reasons.

In the REMARKS, the Applicant argues as follows:

A) That: "The "optical path giving structure" is clearly shown ... [page 22, paragraph 6; REMARKS].

The Examiner agrees with the Applicants and drawing objection is removed. Thank you for detailed explanation.

B)That; "Ota's independent claim 1 fails to recite, disclose .. and optical path difference giving structure .." [page 25, paragraph 2; REMARKS].

The Examiner agrees with the Applicants and double patenting is withdrawn only for application number 10/654,918.

NOTE: Please new double patenting above.

C) That: "As described in the Description of Related Art section ...(see paragraphs 0221-023 and fig. 8 of the published application). ....

Therefore it is respectfully submitted that the specification sufficiently explains the subject matter of the invention such that one skilled in the art would be able to make and/or use the invention." [page 26, paragraphs 1-4; REMARKS].

FIRST: It seems that the Applicants are making conclusions NOT explanations.

SECOND: The letters M and L are not explained at all any place as what they are, what limit, if any, they represent, how are they different from each or similar to each other etc.

D) that: "The phrase "an assumption of no existence of ... can be understood by a person skilled in the art with reference to Figs. 2, 3B, and 3C and associated description." [page 26, paragraphs 6; REMARKS].

FIRST: The problem is NOT with the optical path giving structure [which is described in the these figures] as Applicants are stating. The problem lies with word "assumption" it self.

SECOND: The words implies as if some person is sitting around making judgements. If a word like "if this part doe not exist" or in absence of such a part or when system consist of only these parts [implying] absence of that particular part may make more sense.

E) That: "As described in the Description of ...

Therefore, it is respectfully submitted that what number M or L represent or how they relate to wavelength is in fact clear to one skilled in the art." [page 27-28, paragraphs 4 and 1-2; REMARKS].

FIRST: It seems that the Applicants are making conclusions, NOT explanations.

SECOND: The letters M and L are not explained at all any place as what they are, what limit, if any, they represent, how are they different from each or similar to each other etc. It not even defined that they some kind of numbers as it being argued.

Other prior art cited

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Koreeda (US. Patent 6,667,821).
b) Ikenaka et al. (US. Patent Application 2003/0076595 A1).
c) Maruyama (US. Patent Application 2004/0036972 A1).

11. **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

GAUTAM R. PATEL
PRIMARY PATENT EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

January 10, 2007